PATENT ABSTRACTS OF JAPAN

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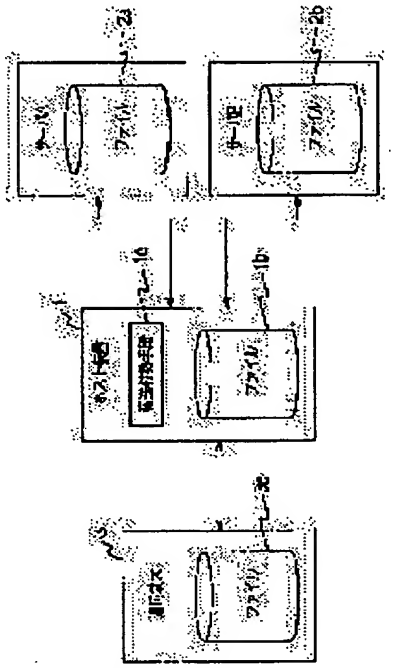
(54) DATA TRANSFER SYSTEM

(57)Abstract:
PROBLEM TO BE SOLVED: To efficiently and surely perform file transfer from a host device to a server device.
SOLUTION: Concerning the data transfer system provided with a host device 1 storing a file 1b to be transferred to server devices A and B and plural server devices A and B for receiving the transfer of the file from this host device 1, the host device 1 is provided with a transfer energizing means 1a for outputting a file transfer instruction when preset conditions are satisfied, and when the file transfer instruction is outputted from this transfer energizing means 1a, the file 1b is transferred to the plural server devices A and B.



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CLAIMS

[Claim(s)]
[Claim 1] In the data transfer system equipped with the host equipment with which the file transmitted to server equipment was stored, and two or more server equipments which receive a transfer of said file from this host equipment Said host equipment is the data transfer system characterized by transmitting said file to said two or more server equipments when the conditions set up beforehand were fulfilled, it has a transfer energization means to output a file transfer instruction and said file transfer instruction is outputted from this transfer energization means.
[Claim 2] It is the data transfer system according to claim 1 characterized by equipping said transfer energization means with the file designation function to specify the file which should be transmitted to said two or more server equipments, and for said host equipment choosing only the file specified by said file designation function, and transmitting to said two or more server equipments.
[Claim 3] Said transfer energization means is the data transfer system according to claim 1 characterized by outputting said file transfer instruction if the time of day set up beforehand comes.
[Claim 4] Said transfer energization means is the data transfer system according to claim 3 characterized by outputting said file transfer instruction if the low time of day of the processing load of said host equipment set up beforehand or the low time of day of the communication link load between said server equipment comes.
[Claim 5] Said host equipment is the data-transfer system characterized by to transmit the file concerned to two or more of said server equipments when said file is stored with said employment terminal in the data-transfer system equipped with the host equipment with which the file transmitted to server equipment is stored, two or more server equipments which receive a transfer of said file from this host equipment, and the employment terminal which store said file in said host equipment.
[Claim 6] It is the data-transfer system characterized by to have the command transfer facility which transmits the command which can process with said server equipment into which said host equipment was inputted from said employment terminal in the data-transfer system equipped with two or more server equipments, the host equipment which transmits predetermined data to the server equipment of these plurality, and the employment terminal which inputs a command into this host equipment to said server equipment.
[Claim 7] It is the data transfer system according to claim 6 characterized by to have had the status reply function for said server equipment to process the command transmitted by said command transfer facility, and to answer said host equipment in the result of the processing concerned, and to equip said host equipment with the processing result transfer facility which transmits the processing result answered by said status reply function to said employment terminal.
[Claim 8] Said host equipment is the data transfer system according to claim 1, 5, or 6 characterized by choosing only the specified server equipment concerned and transmitting said file, when assignment of destination server equipment is received from said transfer energization means or said employment terminal.

DETAILED DESCRIPTION

[Detailed Description of the Invention]
[0001]
[Field of the Invention] This invention relates to a data transfer system, and relates to the data transfer system which transmits a file and a command to two or more server equipments which are scattered at a store from the host equipment of a pin center,large especially.
[0002]
[Description of the Prior Art] Conventionally, the data transfer system which sends and receives data between the host equipment of a pin center,large and two or more server equipments which are scattered at a store is common. For example, there were a case where require download of an update file from each server equipment, and download is performed to server equipment from host equipment to the demand concerned, and a case where the activity whose operator by the side of host equipment operates an employment terminal, and transmits a predetermined file to predetermined server equipment was done.
[0003]
[Problem(s) to be Solved by the Invention] However, if it was in the above-mentioned conventional example, when an update file was downloaded according to the demand from server equipment, un-arranging [which the difference of a version produces] was in the application program in use between the servers of each store. Moreover, an operator's activity was complicated, and when downloading by actuation of the operator by the side of a host, since it was usually necessary to work at the high daytime of a communication link load, there was un-arranging [that the effectiveness of a file transfer was also bad].
[0004]
[Objects of the Invention] This invention improves un-arranging [which this conventional example has], and sets it as the purpose to offer the file transfer system which can perform efficiently and certainly the file transfer from host equipment to server equipment especially.
[0005]
[Means for Solving the Problem] In order to attain the above-mentioned purpose, in invention according to claim 1, it has the host equipment with which the file transmitted to server equipment was stored, and two or more server equipments which receive a transfer of a file from this host equipment. Moreover, host equipment has taken the configuration of transmitting a file to two or more server equipments when the conditions set up beforehand were fulfilled, it has a transfer energization means to output a file transfer instruction and a file transfer instruction is outputted from this transfer energization means.
[0006] In invention according to claim 2, the transfer energization means was equipped with the file designation function to specify the file which should be transmitted to two or more server equipments, and host equipment has taken the configuration of choosing only the file specified by the file designation function, and transmitting to two or more server equipments.
[0007] In invention according to claim 3, the transfer energization means has taken the configuration of outputting a file transfer instruction if the time of day set up beforehand comes.
[0008] In invention according to claim 4, the transfer energization means has taken the configuration of outputting a file transfer instruction if the low time of day of the processing load of the host equipment set up beforehand or the low time of day of the communication link load between server equipment comes.
[0009] In invention according to claim 5, it has the host equipment with which the file transmitted to server equipment is stored, two or more server equipments which receive a transfer of a file from this host equipment, and the employment terminal which stores a file in host equipment. Moreover, host equipment has taken the configuration of transmitting the file concerned to two or more server equipments, when a file is stored with an employment terminal.
[0010] In invention according to claim 6, two or more server equipments, the host equipment which transmits predetermined data to the server equipment of these plurality, and this host equipment are

equipped with the employment terminal which inputs a command. Moreover, host equipment has taken the configuration of having the command transfer facility which transmits the command which can be processed with the server equipment inputted from the employment terminal to server equipment.
[0011] In invention according to claim 7, it had the status reply function for server equipment to process the command transmitted by the command transfer facility, and to answer host equipment in the result of the processing concerned, and host equipment has taken the configuration of having the processing result transfer facility which transmits the processing result answered by the status reply function to an employment terminal.
[0012] In invention according to claim 8, host equipment has taken the configuration of choosing only the specified server equipment concerned and transmitting a file, if assignment of destination server equipment is received from a transfer energization means or an employment terminal.
[0013] It is going to attain the purpose mentioned above by these.
[0014]
[Embodiment of the Invention] Hereafter, 1 operation gestalt of this invention is explained based on drawing 1 .
[0015] The data transfer system shown in drawing 1 is equipped with the host equipment 1 with which file 1b transmitted to the server equipments A and B was stored, and two or more server equipments A and B which receive a transfer of file 1b from this host equipment 1. Moreover, host equipment 1 is equipped with the waiting transfer facility for a condition which transmits file 1b to two or more server equipments A and B, when the conditions set up beforehand were fulfilled, it has transfer energization means 1a which outputs a file transfer instruction and a file transfer instruction is outputted from this transfer energization means 1a. Here, transfer energization means 1a is an application program performed inside host equipment 1.
[0016] This transfer energization means 1a was equipped with the file designation function to specify the file which should be transmitted to two or more server equipments A and B, and host equipment 1 is equipped with the file selection transfer facility which chooses from file 1b only the file specified by the file designation function, and is transmitted to two or more server equipments A and B.
[0017] In this operation gestalt, if the low time of day of the processing load of the host equipment 1 which outputted the file transfer instruction and was especially set up beforehand when the time of day set up beforehand came, or the low time of day of the communication link load between server equipment comes, transfer energization means 1a is set up so that a file transfer instruction may be outputted. For example, it is a midnight time zone.
[0018] Moreover, transfer energization means 1a is equipped with the function to specify the server used as the destination of a file. If assignment of destination server equipment is received from transfer energization means 1a, host equipment 1 will choose only the specified server equipment concerned, and will transmit a file.
[0019] Next, actuation of this operation gestalt is explained based on drawing 2 .
[0020] First, a file to transmit to a server is stored in file 1b of host equipment 1 (S1). This storing may be performed from the employment terminal 3, and it may be carried out from the server equipment of arbitration. You may enable it to add the information on the server equipment used as the destination to the file concerned in the case of storing of this file. Then, in transfer energization means 1a, formation of the transfer conditions of a file outputs the information on the server equipment which serves as a file transfer instruction and the destination from this transfer energization means 1a, and the file designation information which should be transmitted. The host equipment 1 which received this instruction reads the specified file from file 1b, and transmits it to 1 which had this specified thru/or two or more destination server equipments (S3). With this operation gestalt, the file stored in host equipment 1 is transmitted to server equipment in the midnight time zone when the processing load of the host concerned and the communication link load between server equipment are low. According to this, an efficient file transfer can be performed and the file transfer to server equipment can be performed certainly. Here, the server equipment used as the destination is good also as server equipment which transfer energization means 1a specifies as mentioned above, and good also as server equipment specified from the employment terminal 3 or other server equipments.
[0021] Next, other operation gestalten of this invention are explained based on drawing 3 . Since the structure of a system is the same as that of drawing 1 , explanation is omitted. With this operation gestalt, a file is stored in file 1b of host equipment 1 from the employment terminal 3 (S11). Host equipment 1 transmits the file to two or more server equipments A and B, shortly after receiving storing of the file from the employment terminal 3 (S12). Thereby, the file transfer to two or more server equipments can be performed certainly, and it also becomes possible to update the application of each server equipment to coincidence. It enables it to specify destination server equipment from the employment terminal 3, and may

be made to perform a file transfer here only to the server equipment with which host equipment 1 was specified.
[0022] Next, the operation gestalt of further others of this invention is explained based on drawing 4 . Since the structure of a system is the same as that of drawing 1 , explanation is omitted. With this operation gestalt, a command is inputted from the employment terminal 3 to host equipment 1. Host equipment 1 receives the input of this command (S21), and judges the command which the command concerned should process with host equipment 1, and the command which should be processed with server equipment. This judgment may be made according to the class of command, and the discernment parameter added to the command may perform. Consequently, if it judges that it is the command which should be processed with server equipment, the command concerned will be transmitted to server equipment as it is (S22). You may enable it to specify the server equipment used as the destination of the command concerned as a parameter here in the command inputted from the employment terminal 3. 1 thru/or two or more server equipments which received this command processes the command concerned, and if the reply of a processing result is a required command, host equipment 1 will be answered in a processing result (status). The command which the version information of the application stored in current server equipment is made to answer as a command transmitted to server equipment from the employment terminal 3 for example, the command which the system information of the server equipment is made to answer, the command which performs application stored in the file of server equipment are prepared.
[0023] if host equipment 1 receives the status answered from 1 thru/or two or more server equipments (S23) — the status — the employment terminal 3 — transmitting — a display output — or a printout is carried out (S24). According to this, server equipment to be transmitted [of an update file] can be easily recognized from the employment terminal 3, for example. Moreover, the class of program file which should be transmitted according to the model and operating system of server equipment can be chosen. Furthermore, the update file transmitted to the server can be performed by remote processing from the employment terminal 3, and the application of each server equipment can also be updated to coincidence. It becomes unnecessary moreover, to place the talented people who have the knowledge about file updating for every store on which each server equipment was put.
[0024]
[Effect of the Invention] Since this invention transmits the file of host equipment to two or more server equipments when the conditions which were beforehand set up by invention according to claim 1 according to this since it was constituted as mentioned above and functioned are fulfilled, a difference cannot appear in the existence of a transfer of a file between each server, and it can perform a file transfer certainly to two or more server equipments.
[0025] In invention according to claim 2, since only the file specified among the files stored in host equipment is transmitted to a server, only the file of the format which could transmit only the required file without futility and suited server equipment can be chosen and transmitted.
[0026] In invention according to claim 3, since a file is transmitted to the time amount set up beforehand, a file transfer can be carried out to the time amount which was suitable for the file transfer according to the system.
[0027] In invention according to claim 4, since a file transfer is carried out to time amount with low processing load of host equipment and communication link load between server equipment, an efficient file transfer can be performed.
[0028] In invention according to claim 5, since the file is immediately transmitted to two or more host equipments when a file is stored in host equipment from an employment terminal, a file transfer can be immediately performed to two or more server equipments to transmit a file.
[0029] In invention according to claim 6, since the command inputted from the employment terminal can be made to process with server equipment, the application on server equipment is started from an employment terminal, or it becomes possible to make coincidence by this perform version up of application between each server, for example.
[0030] In invention according to claim 7, since the processing result (status) which server equipment returns to the command from an employment terminal is transmitted to an employment terminal, it enables this to be able to know the system information of each server equipment, the version information of a file, etc., and to transmit a suitable file for every server equipment at an employment terminal, for example.
[0031] In invention according to claim 8, since a file and a transfer of a command are performed only to the specified server equipment, the outstanding data transfer system which is not in the former that the suitable file transfer or command transfer in consideration of the need for the file transfer for every server equipment, the compatibility of a file which it is going to transmit can be performed can be offered.

[Translation done.]

TECHNICAL FIELD

[Field of the Invention] This invention relates to a data transfer system, and relates to the data transfer system which transmits a file and a command to two or more server equipments which are scattered at a store from the host equipment of a pin center,large especially.

[Translation done.]

PRIOR ART

[Description of the Prior Art] Conventionally, the data transfer system which sends and receives data between the host equipment of a pin center,large and two or more server equipments which are scattered at a store is common. For example, there were a case where require download of an update file from each server equipment, and download is performed to server equipment from host equipment to the demand concerned, and a case where the activity whose operator by the side of host equipment operates an employment terminal, and transmits a predetermined file to predetermined server equipment was done.

[Translation done.]

EFFECT OF THE INVENTION

[Effect of the Invention] Since this invention transmits the file of host equipment to two or more server equipments when the conditions which were beforehand set up by invention according to claim 1 according to this since it was constituted as mentioned above and functioned are fulfilled, a difference cannot appear in the existence of a transfer of a file between each server, and it can perform a file transfer certainly to two or more server equipments.
[0025] In invention according to claim 2, since only the file specified among the files stored in host equipment is transmitted to a server, only the file of the format which could transmit only the required file without futility and suited server equipment can be chosen and transmitted.
[0026] In invention according to claim 3, since a file is transmitted to the time amount set up beforehand, a file transfer can be carried out to the time amount which was suitable for the file transfer according to the system.
[0027] In invention according to claim 4, since a file transfer is carried out to time amount with low processing load of host equipment and communication link load between server equipment, an efficient file transfer can be performed.
[0028] In invention according to claim 5, since the file is immediately transmitted to two or more host equipments when a file is stored in host equipment from an employment terminal, a file transfer can be immediately performed to two or more server equipments to transmit a file.
[0029] In invention according to claim 6, since the command inputted from the employment terminal can be made to process with server equipment, the application on server equipment is started from an employment terminal, or it becomes possible to make coincidence by this perform version up of application between each server, for example.
[0030] In invention according to claim 7, since the processing result (status) which server equipment returns to the command from an employment terminal is transmitted to an employment terminal, it enables this to be able to know the system information of each server equipment, the version information of a file, etc., and to transmit a suitable file for every server equipment at an employment terminal, for example.
[0031] In invention according to claim 8, since a file and a transfer of a command are performed only to the specified server equipment, the outstanding data transfer system which is not in the former that the suitable file transfer or command transfer in consideration of the need for the file transfer for every server equipment, the compatibility of a file which it is going to transmit can be performed can be offered.

TECHNICAL PROBLEM

[Problem(s) to be Solved by the Invention] However, if it was in the above-mentioned conventional example, when an update file was downloaded according to the demand from server equipment, un-arranging [which the difference of a version produces] was in the application program in use between the servers of each store. Moreover, an operator's activity was complicated, and when downloading by actuation of the operator by the side of a host, since it was usually necessary to work at the high daytime of a communication link load, there was un-arranging [that the effectiveness of a file transfer was also bad].

[0004]

[Objects of the Invention] This invention improves un-arranging [which this conventional example has], and sets it as the purpose to offer the file transfer system which can perform efficiently and certainly the file transfer from host equipment to server equipment especially.

[Translation done.]

MEANS

[Means for Solving the Problem] In order to attain the above-mentioned purpose, in invention according to claim 1, it has the host equipment with which the file transmitted to server equipment was stored, and two or more server equipments which receive a transfer of a file from this host equipment. Moreover, host equipment has taken the configuration of transmitting a file to two or more server equipments when the conditions set up beforehand were fulfilled, it has a transfer energization means to output a file transfer instruction and a file transfer instruction is outputted from this transfer energization means.
[0006] In invention according to claim 2, the transfer energization means was equipped with the file designation function to specify the file which should be transmitted to two or more server equipments, and host equipment has taken the configuration of choosing only the file specified by the file designation function, and transmitting to two or more server equipments.
[0007] In invention according to claim 3, the transfer energization means has taken the configuration of outputting a file transfer instruction if the time of day set up beforehand comes.
[0008] In invention according to claim 4, the transfer energization means has taken the configuration of outputting a file transfer instruction if the low time of day of the processing load of the host equipment set up beforehand or the low time of day of the communication link load between server equipment comes.
[0009] In invention according to claim 5, it has the host equipment with which the file transmitted to server equipment is stored, two or more server equipments which receive a transfer of a file from this host equipment, and the employment terminal which stores a file in host equipment. Moreover, host equipment has taken the configuration of transmitting the file concerned to two or more server equipments, when a file is stored with an employment terminal.
[0010] In invention according to claim 6, two or more server equipments, the host equipment which transmits predetermined data to the server equipment of these plurality, and this host equipment are equipped with the employment terminal which inputs a command. Moreover, host equipment has taken the configuration of having the command transfer facility which transmits the command which can be processed with the server equipment inputted from the employment terminal to server equipment.
[0011] In invention according to claim 7, it had the status reply function for server equipment to process the command transmitted by the command transfer facility, and to answer host equipment in the result of the processing concerned, and host equipment has taken the configuration of having the processing result transfer facility which transmits the processing result answered by the status reply function to an employment terminal.
[0012] In invention according to claim 8, host equipment has taken the configuration of choosing only the specified server equipment concerned and transmitting a file, if assignment of destination server equipment is received from a transfer energization means or an employment terminal.
[0013] It is going to attain the purpose mentioned above by these.
[0014]
[Embodiment of the Invention] Hereafter, 1 operation gestalt of this invention is explained based on drawing 1 .
[0015] The data transfer system shown in drawing 1 is equipped with the host equipment 1 with which file 1b transmitted to the server equipments A and B was stored, and two or more server equipments A and B which receive a transfer of file 1b from this host equipment 1. Moreover, host equipment 1 is equipped with the waiting transfer facility for a condition which transmits file 1b to two or more server equipments A and B, when the conditions set up beforehand were fulfilled, it has transfer energization means 1a which outputs a file transfer instruction and a file transfer instruction is outputted from this transfer energization means 1a. Here, transfer energization means 1a is an application program performed inside host equipment 1.
[0016] This transfer energization means 1a was equipped with the file designation function to specify the file which should be transmitted to two or more server equipments A and B, and host equipment 1 is

equipped with the file selection transfer facility which chooses from file 1b only the file specified by the file designation function, and is transmitted to two or more server equipments A and B.
[0017] In this operation gestalt, if the low time of day of the processing load of the host equipment 1 which outputted the file transfer instruction and was especially set up beforehand when the time of day set up beforehand came, or the low time of day of the communication link load between server equipment comes, transfer energization means 1a is set up so that a file transfer instruction may be outputted. For example, it is a midnight time zone.
[0018] Moreover, transfer energization means 1a is equipped with the function to specify the server used as the destination of a file. If assignment of destination server equipment is received from transfer energization means 1a, host equipment 1 will choose only the specified server equipment concerned, and will transmit a file.
[0019] Next, actuation of this operation gestalt is explained based on drawing 2 .
[0020] First, a file to transmit to a server is stored in file 1b of host equipment 1 (S1). This storing may be performed from the employment terminal 3, and it may be carried out from the server equipment of arbitration. You may enable it to add the information on the server equipment used as the destination to the file concerned in the case of storing of this file. Then, in transfer energization means 1a, formation of the transfer conditions of a file outputs the information on the server equipment which serves as a file transfer instruction and the destination from this transfer energization means 1a, and the file designation information which should be transmitted. The host equipment 1 which received this instruction reads the specified file from file 1b, and transmits it to 1 which had this specified thru/or two or more destination server equipments (S3). With this operation gestalt, the file stored in host equipment 1 is transmitted to server equipment in the midnight time zone when the processing load of the host concerned and the communication link load between server equipment are low. According to this, an efficient file transfer can be performed and the file transfer to server equipment can be performed certainly. Here, the server equipment used as the destination is good also as server equipment which transfer energization means 1a specifies as mentioned above, and good also as server equipment specified from the employment terminal 3 or other server equipments.
[0021] Next, other operation gestalten of this invention are explained based on drawing 3 . Since the structure of a system is the same as that of drawing 1 , explanation is omitted. With this operation gestalt, a file is stored in file 1b of host equipment 1 from the employment terminal 3 (S11). Host equipment 1 transmits the file to two or more server equipments A and B, shortly after receiving storing of the file from the employment terminal 3 (S12). Thereby, the file transfer to two or more server equipments can be performed certainly, and it also becomes possible to update the application of each server equipment to coincidence. It enables it to specify destination server equipment from the employment terminal 3, and may be made to perform a file transfer here only to the server equipment with which host equipment 1 was specified.
[0022] Next, the operation gestalt of further others of this invention is explained based on drawing 4 . Since the structure of a system is the same as that of drawing 1 , explanation is omitted. With this operation gestalt, a command is inputted from the employment terminal 3 to host equipment 1. Host equipment 1 receives the input of this command (S21), and judges the command which the command concerned should process with host equipment 1, and the command which should be processed with server equipment. This judgment may be made according to the class of command, and the discernment parameter added to the command may perform. Consequently, if it judges that it is the command which should be processed with server equipment, the command concerned will be transmitted to server equipment as it is (S22). You may enable it to specify the server equipment used as the destination of the command concerned as a parameter here in the command inputted from the employment terminal 3. 1 thru/or two or more server equipments which received this command processes the command concerned, and if the reply of a processing result is a required command, host equipment 1 will be answered in a processing result (status). The command which the version information of the application stored in current server equipment is made to answer as a command transmitted to server equipment from the employment terminal 3 for example, the command which the system information of the server equipment is made to answer, the command which performs application stored in the file of server equipment are prepared.
[0023] if host equipment 1 receives the status answered from 1 thru/or two or more server equipments (S23) — the status — the employment terminal 3 — transmitting — a display output — or a printout is carried out (S24). According to this, server equipment to be transmitted [of an update file] can be easily recognized from the employment terminal 3, for example. Moreover, the class of program file which should be transmitted according to the model and operating system of server equipment can be chosen. Furthermore, the update file transmitted to the server can be performed by remote processing from the employment terminal 3, and the application of each server equipment can also be updated to coincidence.

[It becomes unnecessary moreover, to place the talented people who have the knowledge about file updating for every store on which each server equipment was put.

[Translation done.]

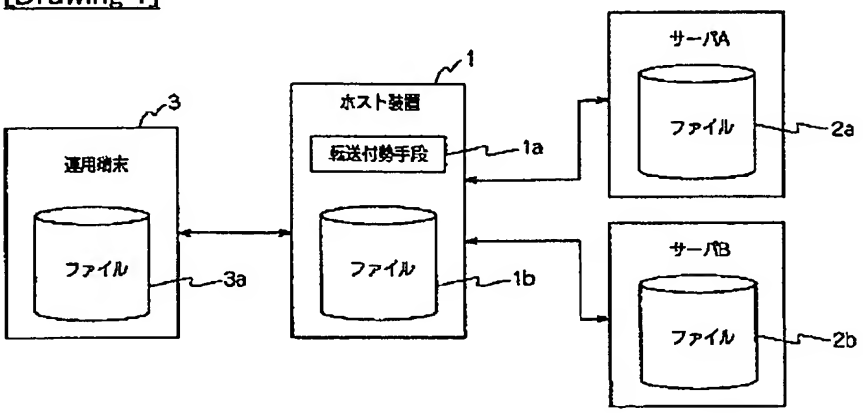
DESCRIPTION OF DRAWINGS

[Brief Description of the Drawings]
[Drawing 1] It is the block diagram showing the configuration of 1 operation gestalt of this invention.
[Drawing 2] It is the flow chart which shows actuation of 1 operation gestalt of this invention.
[Drawing 3] It is the flow chart which shows actuation of other operation gestalten of this invention.
[Drawing 4] It is the flow chart which shows actuation of the operation gestalt of further others of this invention.
[Description of Notations]
1 Host Equipment
1a Transfer energization means
1b The file of host equipment
2a The file of server equipment A
2b The file of server equipment B
3 Employment Terminal
3a The file of an employment terminal
A, B Server equipment

[Translation done.]

DRAWINGS

[Drawing 1]



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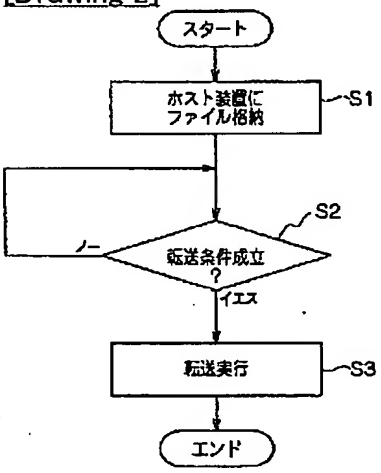
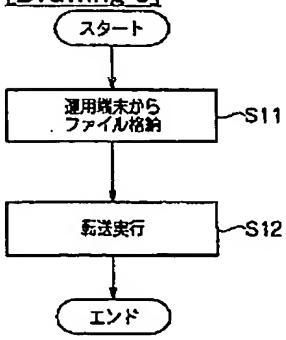
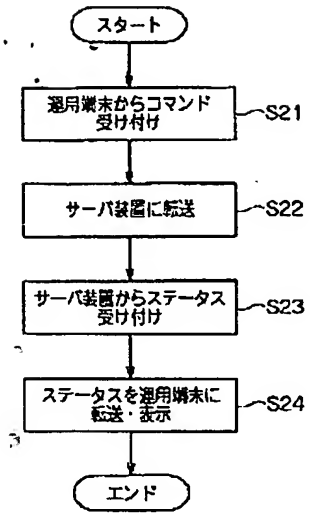


[Drawing 3]



[Drawing 4]



[Translation done.]

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	５４６		５４６Ｐ	

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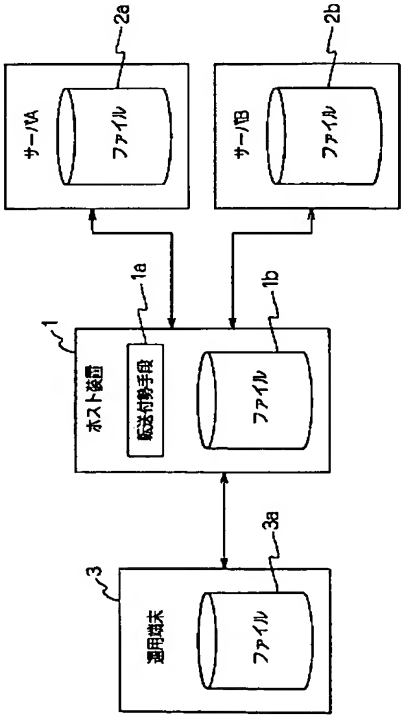
(54)【発明の名称】　データ転送システム

(57)【要約】
【課題】　ホスト装置からサーバ装置へのファイル転送を効率的に、かつ、確実に行うこと。
【解決手段】　サーバ装置Ａ，Ｂに転送するファイル１ｂが格納されたホスト装置１と、このホスト装置１からファイルの転送を受ける複数のサーバ装置Ａ，Ｂとを備えたデータ転送システムにおいて、ホスト装置１は、予め設定された条件が満たされるとファイル転送命令を出力する転送付勢手段１ａを備え、この転送付勢手段１ａからファイル転送命令が出力された時にファイル１ｂを複数のサーバ装置Ａ，Ｂに転送することなど。



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【特許請求の範囲】

【請求項１】　サーバ装置に転送するファイルが格納されたホスト装置と、このホスト装置から前記ファイルの転送を受ける複数のサーバ装置とを備えたデータ転送システムにおいて、

前記ホスト装置は、予め設定された条件が満たされるとファイル転送命令を出力する転送付勢手段を備え、この転送付勢手段から前記ファイル転送命令が出力された時に前記ファイルを前記複数のサーバ装置に転送することを特徴としたデータ転送システム。

【請求項２】　前記転送付勢手段は、前記複数のサーバ装置に転送すべきファイルを指定するファイル指定機能を備え、

前記ホスト装置は、前記ファイル指定機能により指定されたファイルのみを選択して前記複数のサーバ装置に転送することを特徴とした請求項１記載のデータ転送システム。

【請求項３】　前記転送付勢手段は、予め設定された時刻になると前記ファイル転送命令を出力することを特徴とした請求項１記載のデータ転送システム。

【請求項４】　前記転送付勢手段は、予め設定された前記ホスト装置の処理負荷の低い時刻又は前記サーバ装置との間の通信負荷の低い時刻になると前記ファイル転送命令を出力することを特徴とした請求項３記載のデータ転送システム。

【請求項５】　サーバ装置に転送するファイルが格納されるホスト装置と、このホスト装置から前記ファイルの転送を受ける複数のサーバ装置と、前記ホスト装置に前記ファイルを格納する運用端末とを備えたデータ転送システムにおいて、

前記ホスト装置は、前記運用端末により前記ファイルが格納された時に、前記複数のサーバ装置に対し当該ファイルの転送を行うことを特徴としたデータ転送システム。

【請求項６】　複数のサーバ装置と、これら複数のサーバ装置に所定のデータを転送するホスト装置と、このホスト装置にコマンドを入力する運用端末とを備えたデータ転送システムにおいて、

前記ホスト装置は、前記運用端末から入力された前記サーバ装置で処理可能なコマンドを前記サーバ装置に転送するコマンド転送機能を備えていることを特徴としたデータ転送システム。

【請求項７】　前記サーバ装置が、前記コマンド転送機能により転送されたコマンドを処理し当該処理の結果を前記ホスト装置に返信するステータス返信機能を備え、

前記ホスト装置は、前記ステータス返信機能により返信された処理結果を前記運用端末に転送する処理結果転送機能を備えていることを特徴とした請求項６記載のデータ転送システム。

【請求項８】　前記ホスト装置は、前記転送付勢手段又は前記運用端末から転送先サーバ装置の指定を受けると、当該指定されたサーバ装置のみを選択して前記ファイルの転送を行うことを特徴とした請求項１，５又は６記載のデータ転送システム。

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【発明の詳細な説明】

【０００１】

【発明の属する技術分野】本発明は、データ転送システムに係り、特に、センターのホスト装置から店舗に散在する複数のサーバ装置にファイルやコマンドを転送するデータ転送システムに関する。

【０００２】

【従来の技術】従来、センターのホスト装置と店舗に散在する複数のサーバ装置との間でデータの送受を行うデータ転送システムは一般的である。例えば、各サーバ装置から更新ファイルのダウンロードを要求し当該要求に対してホスト装置からサーバ装置にダウンロードが行われる場合や、ホスト装置側のオペレータが運用端末を操作して所定のサーバ装置に所定のファイルを転送する作業を行う場合があった。

【０００３】

【発明が解決しようとする課題】しかしながら、上記従来例にあっては、サーバ装置からの要求に応じて更新ファイルのダウンロードを行う場合、各店舗のサーバ間で使用中のアプリケーションプログラムにバージョンの差が生じる不都合があった。また、ホスト側のオペレータの操作によりダウンロードを行う場合、オペレータの作業が煩雑であり、また、通常通信負荷の高い日中に作業を行う必要があるため、ファイル転送の効率も悪いという不都合があった。

【０００４】

【発明の目的】本発明は、かかる従来例の有する不都合を改善し、特に、ホスト装置からサーバ装置へのファイル転送を効率的に、かつ、確実に行うことのできるファイル転送システムを提供することを、その目的とする。

【０００５】

【課題を解決するための手段】上記目的を達成するため、請求項１記載の発明では、サーバ装置に転送するファイルが格納されたホスト装置と、このホスト装置からファイルの転送を受ける複数のサーバ装置とを備えている。また、ホスト装置は、予め設定された条件が満たされるとファイル転送命令を出力する転送付勢手段を備え、この転送付勢手段からファイル転送命令が出力された時にファイルを複数のサーバ装置に転送する、という構成を採っている。

【０００６】請求項２記載の発明では、転送付勢手段は、複数のサーバ装置に転送すべきファイルを指定するファイル指定機能を備え、ホスト装置は、ファイル指定機能により指定されたファイルのみを選択して複数のサーバ装置に転送する、という構成を採っている。

【０００７】請求項３記載の発明では、転送付勢手段

は、予め設定された時刻になるとファイル転送命令を出力する、という構成を採っている。

【０００８】請求項４記載の発明では、転送付勢手段は、予め設定されたホスト装置の処理負荷の低い時刻又はサーバ装置との間の通信負荷の低い時刻になるとファイル転送命令を出力する、という構成を採っている。

【０００９】請求項５記載の発明では、サーバ装置に転送するファイルが格納されるホスト装置と、このホスト装置からファイルの転送を受ける複数のサーバ装置と、ホスト装置にファイルを格納する運用端末とを備えている。また、ホスト装置は、運用端末によりファイルが格納された時に、複数のサーバ装置に対し当該ファイルの転送を行う、という構成を採っている。

【００１０】請求項６記載の発明では、複数のサーバ装置と、これら複数のサーバ装置に所定のデータを転送するホスト装置と、このホスト装置にコマンドを入力する運用端末とを備えている。また、ホスト装置は、運用端末から入力されたサーバ装置で処理可能なコマンドをサーバ装置に転送するコマンド転送機能を備えている、という構成を採っている。

【００１１】請求項７記載の発明では、サーバ装置が、コマンド転送機能により転送されたコマンドを処理し当該処理の結果をホスト装置に返信するステータス返信機能を備え、ホスト装置は、ステータス返信機能により返信された処理結果を運用端末に転送する処理結果転送機能を備えている、という構成を採っている。

【００１２】請求項８記載の発明では、ホスト装置は、転送付勢手段又は運用端末から転送先サーバ装置の指定を受けると、当該指定されたサーバ装置のみを選択してファイルの転送を行う、という構成を採っている。

【００１３】これらにより前述した目的を達成しようとするものである。

【００１４】

【発明の実施の形態】以下、本発明の一実施形態を図１に基づいて説明する。

【００１５】図１に示すデータ転送システムは、サーバ装置Ａ，Ｂに転送するファイル１ｂが格納されたホスト装置１と、このホスト装置１からファイル１ｂの転送を受ける複数のサーバ装置Ａ，Ｂとを備えている。また、ホスト装置１は、予め設定された条件が満たされるとファイル転送命令を出力する転送付勢手段１ａを備え、この転送付勢手段１ａからファイル転送命令が出力された時にファイル１ｂを複数のサーバ装置Ａ，Ｂに転送する条件待ち転送機能を備えている。ここで、転送付勢手段１ａは、例えばホスト装置１の内部で実行されるアプリケーションプログラムである。

【００１６】この転送付勢手段１ａは、複数のサーバ装置Ａ，Ｂに転送すべきファイルを指定するファイル指定機能を備え、ホスト装置１は、ファイル指定機能により指定されたファイルのみをファイル１ｂから選択して複数のサーバ装置Ａ，Ｂに転送するファイル選択転送機能を備えている。

【００１７】本実施形態において、転送付勢手段１ａは、予め設定された時刻になるとファイル転送命令を出力するようになっており、特に、予め設定されたホスト装置１の処理負荷の低い時刻又はサーバ装置との間の通信負荷の低い時刻になるとファイル転送命令を出力するように設定されている。例えば、深夜の時間帯である。

【００１８】また、転送付勢手段１ａは、ファイルの転送先となるサーバを指定する機能を備えている。ホスト装置１は、転送付勢手段１ａから転送先サーバ装置の指定を受けると、当該指定されたサーバ装置のみを選択してファイルの転送を行うようになっている。

【００１９】次に、本実施形態の動作を図２に基づいて説明する。

【００２０】まず、ホスト装置１のファイル１ｂにサーバに転送したいファイルを格納する（Ｓ１）。この格納は、運用端末３から行われてもよいし、任意のサーバ装置から行われてもよい。このファイルの格納の際には、当該ファイルに転送先となるサーバ装置の情報を付加できるようにしてもよい。その後、転送付勢手段１ａにおいて、ファイルの転送条件が成立すると、該転送付勢手段１ａからファイル転送命令と、転送先となるサーバ装置の情報と、転送すべきファイルの指定情報とが出力される。この命令を受理したホスト装置１は、指定されたファイルをファイル１ｂから読み出し、これを指定された１乃至複数の転送先サーバ装置に転送する（Ｓ３）。本実施形態では、ホスト装置１に格納しておいたファイルが、当該ホストの処理負荷及びサーバ装置との間の通信負荷の低い深夜の時間帯にサーバ装置に転送される。これによると、効率的なファイル転送を行うことができ、また、サーバ装置へのファイル転送を確実に行うことができる。ここで、転送先となるサーバ装置は、上述のように転送付勢手段１ａの指定するサーバ装置としてもよいし、運用端末３や他のサーバ装置から指定されたサーバ装置としてもよい。

【００２１】次に、本発明の他の実施形態を図３に基づいて説明する。システムの構成は図１と同一であるため、説明を省略する。本実施形態では、運用端末３からホスト装置１のファイル１ｂにファイルを格納する（Ｓ１１）。ホスト装置１は、運用端末３からのファイルの格納を受け付けると、そのファイルを直ちに複数のサーバ装置Ａ，Ｂに転送する（Ｓ１２）。これにより、複数のサーバ装置へのファイル転送を確実に行うことができ、各サーバ装置のアプリケーションを同時に更新することも可能となる。ここで、運用端末３から転送先サーバ装置を指定できるようにし、ホスト装置１が指定されたサーバ装置に対してのみファイル転送を行うようにしてもよい。

【００２２】次に、本発明の更に他の実施形態を図４に

基づいて説明する。システムの構成は図１と同一であるため、説明を省略する。本実施形態では、運用端末３からホスト装置１に対しコマンドを入力する。ホスト装置１は、このコマンドの入力を受け付け（Ｓ２１）、当該コマンドがホスト装置１で処理すべきコマンドか、サーバ装置で処理すべきコマンドかを判断する。この判断は、コマンドの種類によって行ってもよいし、コマンドに付加された識別パラメータによって行ってもよい。この結果、サーバ装置で処理すべきコマンドであると判断すると、当該コマンドをそのままサーバ装置に転送する（Ｓ２２）。ここで、運用端末３から入力するコマンドにおいて、当該コマンドの転送先となるサーバ装置をパラメータとして指定できるようにしてもよい。このコマンドを受理した１乃至複数のサーバ装置は、当該コマンドを処理し、処理結果の返信が必要なコマンドであれば、処理結果（ステータス）をホスト装置１に返信する。運用端末３からサーバ装置に転送されるコマンドとしては、例えば、現在サーバ装置に格納しているアプリケーションのバージョン情報を返信させるコマンド、そのサーバ装置のシステム情報を返信させるコマンド、サーバ装置のファイルに格納されているアプリケーションを実行させるコマンドなどを準備する。

【００２３】ホスト装置１は、１乃至複数のサーバ装置から返信されたステータスを受け付けると（Ｓ２３）、そのステータスを運用端末３に転送し、表示出力又は印刷出力させる（Ｓ２４）。これによると、例えば、更新ファイルの転送が必要なサーバ装置を運用端末３から容易に認識することができる。また、サーバ装置の機種やオペレーティングシステムに応じて転送すべきプログラムファイルの種類を選ぶことができる。更に、サーバに転送した更新ファイルを運用端末３から遠隔処理により実行させ、各サーバ装置のアプリケーションを同時に更新することもできる。また、各サーバ装置が置かれた店舗毎にファイル更新に関する知識を有する人材を置く必要もなくなる。

【００２４】

【発明の効果】本発明は、以上のように構成され機能するので、これによると、請求項１記載の発明では、予め設定された条件が満たされた時にホスト装置のファイルを複数のサーバ装置に転送するので、各サーバ間でファイルの転送の有無に差がでることがなく、複数のサーバ装置に対しファイル転送を確実に行うことができる。

【００２５】請求項２記載の発明では、ホスト装置に格納されているファイルのうち指定したファイルだけをサーバに転送するので、必要なファイルのみを無駄なく転送することができ、また、サーバ装置に適合した形式のファイルのみを選択して転送することができる。

【００２６】請求項３記載の発明では、予め設定された

時間にファイルの転送を行うので、システムに応じてファイル転送に適した時間にファイル転送を行うことができる。

【００２７】請求項４記載の発明では、ホスト装置の処理負荷やサーバ装置との間の通信負荷が低い時間にファイル転送を行うので、効率的なファイル転送を行うことができる。

【００２８】請求項５記載の発明では、運用端末からホスト装置にファイルを格納した時直ちに、そのファイルを複数のホスト装置に転送するので、ファイルを転送したい時に直ちに複数のサーバ装置に対してファイル転送を行うことができる。

【００２９】請求項６記載の発明では、運用端末から入力したコマンドをサーバ装置で処理させることができるので、例えば、運用端末からサーバ装置上のアプリケーションを起動させたり、これによりアプリケーションのバージョンアップを各サーバ間で同時に実行させたりすることが可能となる。

【００３０】請求項７記載の発明では、運用端末からのコマンドに対しサーバ装置が返す処理結果（ステータス）を運用端末に転送するので、例えば、運用端末で、各サーバ装置のシステム情報やファイルのバージョン情報などを知ることができ、これにより、サーバ装置毎に適切なファイルの転送を行うことが可能になる。

【００３１】請求項８記載の発明では、指定されたサーバ装置にのみファイルやコマンドの転送を行うので、サーバ装置毎のファイル転送の必要性や転送しようとするファイルの適合性等を考慮した適切なファイル転送又はコマンド転送を行うことができる、という従来にない優れたデータ転送システムを提供することができる。

【図面の簡単な説明】

【図１】本発明の一実施形態の構成を示すブロック図である。

【図２】本発明の一実施形態の動作を示すフローチャートである。

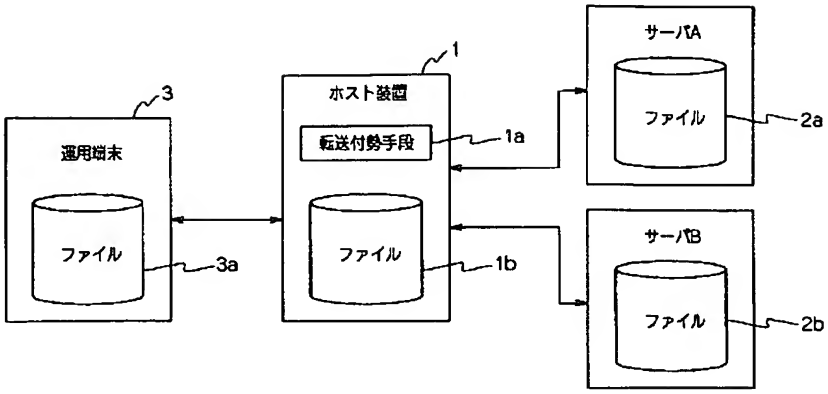
【図３】本発明の他の実施形態の動作を示すフローチャートである。

【図４】本発明の更に他の実施形態の動作を示すフローチャートである。

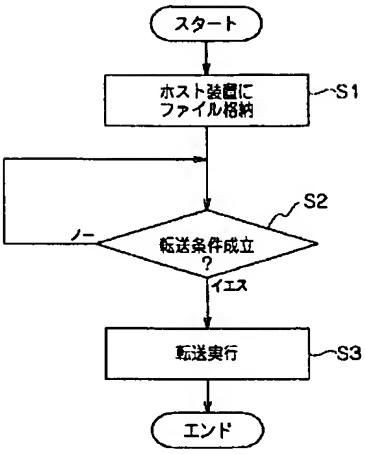
【符号の説明】

１　ホスト装置
１ａ　転送付勢手段
１ｂ　ホスト装置のファイル
２ａ　サーバ装置Ａのファイル
２ｂ　サーバ装置Ｂのファイル
３　運用端末
３ａ　運用端末のファイル
Ａ，Ｂ　サーバ装置

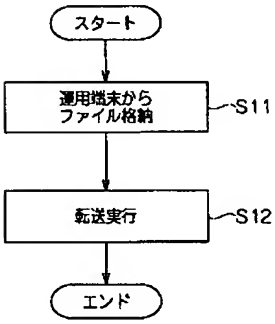
【図１】


1
3
運用端末
ファイル
3a
ホスト装置
転送付勢手段
1a
ファイル
1b
サーバA
ファイル
2a
サーバB
ファイル
2b

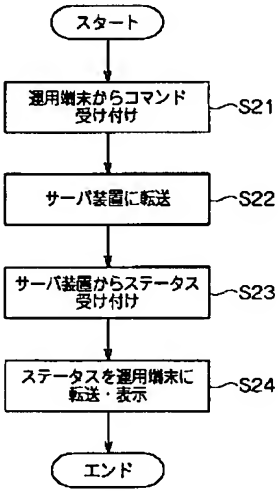
【図２】


スタート
ホスト装置にファイル格納
S1
S2
ノー
転送条件成立？
イエス
転送実行
S3
エンド

【図３】


スタート
運用端末からファイル格納
S11
転送実行
S12
エンド

【図４】


スタート
運用端末からコマンド受け付け
S21
サーバ装置に転送
S22
サーバ装置からステータス受け付け
S23
ステータスを運用端末に転送・表示
S24
エンド